

**AMENDMENTS TO THE DRAWINGS**

Please amend Figure 2 as shown in the enclosed replacement sheet. The label "Prior Art" has been added to the figure.

**REMARKS**

Please reconsider the application in view of the following remarks. Applicant thanks the Examiner for indicating that claims 7 and 10 contain allowable subject matter.

**Disposition of Claims**

Claims 1-18 are pending in this application. Claims 1, 12, 13, and 18 are independent. The remaining claims are, directly or indirectly, dependent on claim 1 or 13.

**Drawings**

Figures 1-3 are required to be designated by a legend such as "Prior Art" because only that which is old is illustrated. Applicant admits that Figure 2 illustrates a prior art, which is quoted from National Committee for Information Technology Standardization (NCITS) T11.2/Project 1316-DT/Rev 5.0, "Fibre Channel Methodologies for Jitter and Signal Quality Specification-February 21, 2002." However, Figure 1 shows typical signal patterns appearing in a measurement of jitter tolerance, comprising a part of a process of one or more embodiments according to the present invention. Further, Figure 3 shows typical signal patterns of a limiting amplifier, comprising a part of a process of one or more embodiments according to the present invention. Accordingly, by way of this reply, the drawings have been appropriately amended to solely designate Figure 2 with a "Prior Art" label.

## **Title**

A new title is required that is clearly indicative of the invention to which the claims are directed. By way of this reply, the title has been amended to "TESTING DEVICE FOR TESTING ELECTRONIC DEVICE AND TESTING METHOD THEREOF."

## **Allowable Subject Matter**

Claims 7 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As discussed set forth below, the base claims 1, 5, 6, and 9 are believed allowable. Thus, rewriting claims 7 and 10 in independent form is deferred at this time.

## **Rejections under 35 U.S.C. § 103**

Claims 1, 2, 3-6, 11-16, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of "The Jitter Tolerance of Fiber Optic Regenerators; December 1987; IEEE Transactions on Communications; Page 1303-1308" ("Trischitta"). In addition, claims 8-9, and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Trischitta and further in view of U.S. Patent Application Publication No. 2003/0202573 ("Yamaguchi"). These rejections are respectfully traversed for the reasons set forth below.

Claims 1 and 13

Independent claim 1 requires, in part, “a deterministic jitter application unit operable to apply deterministic jitter to a given input signal *without causing an amplitude modulation component* and supply said input signal to said electronic device.” Independent claim 13 similarly requires, in part, “applying deterministic jitter to a given input signal *without causing an amplitude modulation component* and supply said input signal to said electronic device.”

In contrast, neither AAPA, nor Trischitta, impliedly or expressly teach or suggest at least this limitation of the claimed invention.

In the Office Action, the paragraph starting at line 5, on page 3, the Examiner asserts that AAPA discloses “a testing device for testing an electronic device, comprising a deterministic jitter application unit operable to apply deterministic jitter to a given input signal *without causing an amplitude modulation component*.” Applicant respectfully disagrees. As described in Figure 2 and paragraph [0005] on page 2 of the originally filed application, AAPA discloses the limiting amplifier 214, which removes merely a part of an amplitude component. However, AAPA does not teach or suggest that the limiting amplifier 214 applies deterministic jitter *without causing an amplitude modulation component*. Accordingly, AAPA does not teach or suggest, either impliedly or expressly, at least the above-described feature recited in claims 1 and 13.

Trischitta discloses a device for measuring a jitter tolerance, including a circuit to inject a jitter. However, Trischitta does not teach anything about applying a deterministic jitter *without causing an amplitude modulation component*. Accordingly, Trischitta does not teach or suggest, either impliedly or expressly, at least the above-described feature recited in claims 1 and 13.

Claims 12 and 18

Independent claim 12 requires, in part, “wherein said jitter amount controller determines said magnitude of said sinusoidal jitter based on a threshold value of a peak-to-peak value of alignment jitter between said input signal and a recovered clock signal recovered by said electronic device from said input signal, and a jitter transfer junction in said electronic device that is nondefective.” Independent claim 18 similarly requires, in part, “wherein said controlling of said magnitude of said sinusoidal jitter determines said magnitude of said sinusoidal jitter based on a threshold value of a peak-to-peak value of alignment jitter between said input signal and a recovered clock signal recovered by said electronic device from said input signal, and a jitter transfer function of said electronic device that is nondefective.”

In contrast, neither AAPA, nor Trischitta, impliedly or expressly teach or suggest at least this limitation of the claimed invention.

As the Examiner acknowledges, in the Office Action, in the paragraph starting at line 16 on page 5, AAPA does not disclose the magnitude of sinusoidal jitter is based on peak-to-peak value of alignment jitter. However, the Examiner asserts, in the Office Action, in the paragraph starting at line 18 on page 5, that Trischitta discloses “jitter amount controller determining a magnitude of a sinusoidal jitter based on a threshold value of a peak-to-peak value of *alignment jitter between an input signal and a recovered clock signal recovered by an electronic device from the input signal...*” Applicant respectfully disagrees.

Trischitta discloses an analysis result of an accumulated jitter in a long chain of fiber optic regenerator. However, the alignment jitter used in the analysis of Trischitta is an accumulated alignment jitter as a *difference between an output jitter of an Nth regenerator and input jitter of the Nth regenerator (see, the equation (9) of Trischitta)*, which is substantially

different from “the alignment jitter *between an input signal and a recovered clock signal recovered by an electronic device from the input signal,*” as recited in the claimed invention.

Further, Trischitta merely discloses an analytical model of a system performance of a manufactured fiber optic regenerator and, thus, does not teach or suggest any process for controlling a magnitude of a magnitude of a sinusoidal jitter for a specific purpose, as required by the claimed invention.

Accordingly, Trischitta does not teach or suggest, either impliedly or expressly, any component or process for determining a magnitude of a sinusoidal jitter based on a threshold value of a peak-to-peak value of alignment jitter between an input signal and a recovered clock signal recovered by an electronic device from the input signal, as recited in claims 12 and 18.


In view of above, AAPA and Trischitta, whether considered separately or in combination, fail to show or suggest the invention as recited in independent claims 1, 12, 13, and 18. Dependent claims are, therefore, patentable for at least same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

**Conclusion**

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 02008/136002).

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Respectfully submitted,

By  \_\_\_\_\_

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